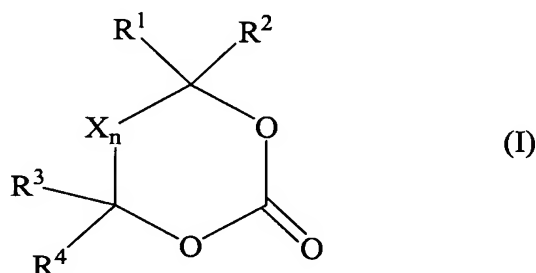


AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Claim 1 (Previously Presented): A process for the catalytic hydroformylation of an olefinically unsaturated compound having from 3 to 24 carbon atoms using an unmodified catalyst comprising at least one metal of groups 8 to 10 of the Periodic Table of the Elements, wherein the hydroformylation is carried out in the presence of a cyclic carbonic ester of the formula I



where

R^1, R^2, R^3, R^4 are identical or different and are each H or a substituted or unsubstituted aliphatic, alicyclic, aromatic, aliphatic-alicyclic, aliphatic-aromatic or alicyclic-aromatic hydrocarbon radical having from 1 to 27 carbon atoms,

n is 0 - 5

X is a divalent substituted or unsubstituted, aliphatic, alicyclic, aromatic, aliphatic-alicyclic or aliphatic-aromatic hydrocarbon radical having from 1 to 27 carbon atoms,

with the proportion of the carbonic ester being at least 1% by weight of the reaction mixture.

Claim 2 (Previously Presented): The process as claimed in claim 1, wherein R^1 , R^2 , R^3 , R^4 and X are substituted by identical or different substituents selected from the group consisting of O, N, NH, N-alkyl, N-dialkyl, fluorine, chlorine, bromine, iodine, -OH, -OR, -CN, -C(O)alkyl and -C(O)O-alkyl.

Claim 3 (Previously Presented): The process as claimed in claim 1, wherein said hydroformylation is carried out in the presence of from 5 to 50% by weight, based on the reaction mixture, of a solvent which is nonpolar compared to the cyclic carbonic ester I and is immiscible with the cyclic carbonic ester I.

Claim 4 (Previously Presented): The process as claimed in claim 1, wherein the reaction product from the hydroformylation is extracted with a nonpolar solvent which is immiscible with said cyclic carbonic ester.

Claim 5 (Previously Presented): The process as claimed in claim 3, wherein substituted or unsubstituted hydrocarbons having from 10 to 50 carbon atoms or olefins having from 3 to 24 carbon atoms are used as nonpolar solvent.

Claim 6 (Previously Presented): The process as claimed in claim 1, wherein said hydroformylation is carried out in the presence of $HRh(CO)_3$ as catalyst.

Claim 7 (Previously Presented): The process as claimed in claim 1, wherein the reaction product mixture from the hydroformylation reaction is separated into a fraction comprising predominantly the catalyst and the cyclic carbonic ester and a fraction comprising predominantly the hydroformylation products.

Claim 8 (Previously Presented): The process as claimed in claim 1, wherein a fraction comprising said catalyst is recirculated to the hydroformylation reaction.

Claim 9 (Previously Presented): The process as claimed in claim 1, wherein the cyclic carbonic ester is ethylene carbonate, propylene carbonate, butylene carbonate or a mixture thereof.

Claim 10 (Previously Presented): The process as claimed in claim 1, wherein the unreacted olefinically unsaturated compound is separated off from the reactor output or from the hydroformylation products and are returned to the same hydroformylation reaction or passed to a second hydroformylation reaction.

Claim 11 (Previously Presented): The process as claimed in claim 1, wherein the olefinically unsaturated compound is a compound which has been obtained as unreacted olefinically unsaturated compound from the reactor output of a first hydroformylation reaction.

Claim 12 (Previously Presented): The process as claimed in claim 11, wherein the olefinically unsaturated compound is a compound which has been obtained as unreacted olefinically unsaturated compound from the reactor output of a first hydroformylation reaction carried out in the presence of a ligand-modified catalyst.

Claim 13 (Previously Presented): The process as claimed in claim 4, wherein substituted or unsubstituted hydrocarbons having from 10 to 50 carbon atoms or olefins having from 3 to 24 carbon atoms are used as nonpolar solvent.

Claim 14 (New): The process as claimed in claim 1, wherein said catalyst comprises rhodium.

Claim 15 (New): The process as claimed in claim 1, wherein said cyclic carbonic ester is present as a solvent in said reaction mixture.

Claim 16 (New): The process as claimed in claim 1, wherein said cyclic carbonic ester is present in said reaction mixture in an amount of from 1 to 98% by weight.

Claim 17 (New): The process as claimed in claim 1, wherein said cyclic carbonic ester is present in said reaction mixture in an amount of from 5 to 70% by weight.

Claim 18 (New): The process as claimed in claim 1, wherein said cyclic carbonic ester is present in said reaction mixture in an amount of from 5 to 50% by weight.

Claim 19 (New): The process as claimed in claim 1, wherein said cyclic carbonic ester is present in said reaction mixture in an amount of at least 5 % by weight.

Claim 20 (New): The process as claimed in claim 1, wherein said cyclic carbonic ester is present in said reaction mixture in an amount of from 5 to 98% by weight.